WHAT IS CLAIMED IS:

1. An optical film comprising an optical element capable of forming spatial distribution of light transmittance, and a light shield layer positioned on an opposite side of the optical element, said light shield layer being composed of a compound which changes light transmittance depending on irradiation of an energy beam, wherein the light transmittance passing the light shield layer is modulated spatially depending on a dose of energy beam.

2. An optical film comprising an optical element capable of forming spatial distribution of light transmittance, and a light shield layer positioned on an opposite side of the optical element, said light shield layer being composed of a compound containing at least silver halide, wherein the light transmittance passing the light shield layer is modulated spatially by irradiating the compound with an energy beam.

3. An optical film comprising an optical element capable of forming spatial distribution of light transmittance, and a light shield layer positioned on an opposite side of the optical element, said light shield layer being composed of at least silver or a compound containing silver, wherein the light transmittance passing the light shield layer is modulated spatially depending on a concentration of silver contained in the light shield layer.

4. An optical film comprising an optical element

capable of forming spatial distribution of light transmittance, and a light shield layer positioned on an opposite side of the optical element, said light shield layer being composed of a gelatin material dispersing therein at least silver or a compound containing silver, wherein by irradiating the light shield layer with an energy beam, a silver concentration in an irradiated region is made smaller than that in a non-irradiated region.

An optical film comprising an optical element capable of forming spatial distribution of light transmittance, and a light shield layer positioned on an opposite side of the optical element, said light shield layer being composed of a gelatin material dispersing therein at least silver or a compound containing silver, and a photosensitive material containing a silver halide which has a property of making a silver concentration in a region irradiated by an energy beam smaller than that in a non-irradiated region.

An optical film comprising an optical element capable of forming spatial distribution of light transmittance, a light shield layer and a light diffusion layer, said light shield layer being positioned between the optical element and the light diffusion layer and composed of a compound which changes light transmittance depending on irradiation of an energy beam, wherein the light transmittance passing

the light shield layer is modulated spatially depending on a dose of energy beam.

7. An optical film comprising an optical element capable of forming spatial distribution of light transmittance, a light shield layer and a light diffusion layer, said light shield layer containing light transmitting regions and light shielding regions, and said light diffusion layer being positioned at least upper side or lower side of the light shield layer corresponding to the light transmitting regions.

8. An optical film comprising an optical element capable of forming spatial distribution of light transmittance, and a light shield layer positioned on an opposite side of the optical element, said light shield layer containing small balls having transmittivity.

9. An optical film according to Claim 1, wherein the optical element is a microlens array.

10. An optical film according to Claim 2, wherein the optical element is a microlens array.

11. An optical film according to Claim 3, wherein the optical element is a microlens array.

12. An optical film according to Claim 4, wherein the optical element is a microlens array.

13. An optical film according to Claim 5, wherein the optical element is a microlens array.

14. An optical film according to Claim 6, wherein the optical element is a microlens array.

15. An optical film according to Claim 1, wherein the optical element is a microlens array.

16. An optical film according to Claim 8, wherein the optical element is a microlens array.

17. An optical film according to Claim 6, wherein the light diffusion layer is positioned betweeen the optical element and the light shield layer.

18. An optical film according to Claim 6, wherein the light shield layer and the light diffusion layer are positioned with a gap of 400 μm or less.

19. An optical film according to Claim 6, wherein the light shield layer and the light diffusion layer are positioned with a gap of 150 μm or less.

20. An optical film according to Claim 6, wherein the light shield layer and the light diffusion layer are positioned with a gap of 50 μm or less or without a gap.

21. An optical film according to Claim 8, wherein the small balls have a diameter of 0.1 to 6 μm and contained in the light shield layer in an amount of 1 to 30% by weight.

22. An optical film according to Claim 1, wherein the optical film takes a shape of a film or a substrate.

23. An optical film according to Claim 2, wherein the optical film takes a shape of a film or a substrate.

24. An optical film according to Claim 3, wherein

the optical film takes a shape of a film or a substrate.

25. An optical film according to Claim 4, wherein the optical film takes a shape of a film or a substrate.

26. An optical film according to Claim 5, wherein the optical film takes a shape of a film or a substrate.

27. An optical film according to Claim 6, wherein the optical film takes a shape of a film or a substrate.

28. An optical film according to Claim 7, wherein the optical film takes a shape of a film or a substrate.

29. An optical film according to Claim 8, wherein the optical film takes a shape of a film or a substrate.

30. A liquid crystal display comprising a liquid crystal cell, a rear illumination means for emitting collimate rays, and an optical film, wherein the liquid crystal cell is sandwiched between the rear illumination means and the optical film.

31. A liquid crystal display according to Claim 30, wherein the optical film is any one of Claims 1 to 29.

32. A rear projection apparatus comprising a projector containing a light source and a liquid crystal cell, a mirror for reflecting a light from the

projector, and a screen for projecting the light reflected by the mirror, said screen being composed of an optical film of any one of claims 1 to 29.